Claims

1.   A method for analyzing the interaction between one or more molecular species, said method comprising the steps of

creating streams of digital data, that are divisible into diotes, which represent units of digital molecular information;

transferring the stream of digital data through a substrate which is divided into units of biotes, wherein each biote represents the analog complement to a given diote and pairs with the given diote, and wherein each biote-diote pair contains structural molecular information to specifically identify a given molecular species;

manipulating the molecular structure of the substrate by adding or subtracting molecules or groups of molecules to be examined to or from the   ·
substrate;

receiving the streams of digital data transferred through the substrate; and

decoding the identity of an examined molecule or group of molecules interacting with the substrate by deciphering how the molecules affinity to another molecule or group of molecules or molecular sensor or group of molecular sensors alters the stream of digital data.

2.   A method for identifying molecular species, said method comprising the steps of

creating at least one stream of digital data,

transferring the at least one stream of digital data through a substrate;

manipulating the molecular structure of the substrate by allowing interaction of molecules or groups of molecules to be examined with the substrate;

receiving the streams of digital data transferred through the substrate; and

decoding the identity of an examined molecule or group of molecules interacting with the substrate according to the alteration of the stream of digital data obtained during the transmission of the at least one stream of digital data through the substrate.

3.   The method according to claim 1 and 2, wherein the stream of digital data alters during its transfer through the substrate according to a mathematical or programmable function.

4.   The method according to any of claim 1 to 3, wherein the step of creating includes generating a digitally encoded photon flux by means of a laser beam or other photon source.

5.   The method according to claim 4, wherein the photon flux includes a beam or group of beams consisting of polarized, non-polar, monochromatic or broad banned light.

6.   The method according to any of claim 1 to 3, wherein the step of creating includes generating a digitally encoded molecular current.

7.   The method according to any of claim 1 to 3, wherein the step of creating includes generating digital electronic signals by gating electron flow over a two or a three dimensional space.

8.   The method according to any of claim 1 to 7, wherein the step of manipulating includes adding or substracting the molecules or groups of molecules either by means of an expression defined in force, time or space.

9.   The method according to claim 8, wherein the force includes heat, light, gravity, centripetal action, and/or pressure.

10.   The method according to claim 8, wherein the space includes either a two-dimensional surface or a three-dimensional element.

11. A device for analyzing the interaction between one or more molecular species, said device comprising

creating means that release streams of digital data being divisible into units of diotes, which represent units of digital molecular information;

transferring means that transfer the stream of digital data through a substrate which is divided into units of biotes wherein each biote represents the analog complement to a given diote and pairs with a given diote, and wherein each biote-diote pair contains structural molecular information to specifically identify a given molecular species;

manipulating means for manipulating the molecular structure of the substrate by adding or subtracting molecules or groups of molecules to be examined to or from the substrate;

receiving means for receiving the streams of digital data transferred through the substrate; and

decoding means for decoding the identify of an examined molecule or group of molecules interacting with the substrate by deciphering how the molecules affinity to another molecule or group of molecules or molecular sensor or group of molecular sensors alters the stream of digital data.

12. A device for identifying molecular species, said device comprising

creating means that release at least one stream of digital data,

transferring means that transfer the at least one stream of digital data through a substrate;

manipulating means for manipulating the molecular structure of the substrate by adding or subtracting molecules or groups of molecules to be examined to or from the substrate;

receiving means for receiving the at least one stream of digital data transferred through the substrate; and

decoding means for decoding the identity of an examined molecule or group of molecules interacting with the substrate according to the alternation of the at least one stream of digital data obtainable during the transmission of the at least one stream of digital data through the substrate.

13. The device according to any of claim 11 or 12, wherein the creating means include an optical system that generates a digitally encoded photon flux by means of a laser beam or other photon source.

14. The device according to claim 13, wherein the photon flux includes a beam or group of beams consisting of polarized, non-polar, monochromatic or broad banned light.

15. The device according to any of claim 11 to 13, wherein the creating means include a microelectronic system that generates a digitally encoded molecular current.

16. The device according to any of claim 11 to 13, wherein the creating means include a microelectronic component that generates digital electronic signals by gating electron flow over a three dimensional space.

17. The device according to claim 16, wherein the microelectronic component includes an entity that either stores, processes, transfers or creates electron flow.

18. The device according to claim 11 or 12, wherein the manipulating means includes an element that adds or subtracts a molecular entity either by means of an expression defined in force, time or space.

19. The device according to claim 17, wherein the force includes heat, light,

gravity, centripetal action, and/or pressure.

20.   The device according to claim 18, wherein the space includes either a two-dimensional surface or a three-dimensional element.

21.   Substrate for analyzing and for identifying molecular species comprising a first layer comprising biotes and a second layer comprising diotes, wherein the biotic layer represents the analog complement to said second diotic layer.

22.   Substrate according to claim 21, wherein the biotic layer comprises receptors for the molecule species.

23.   Substrate according to claim 21 or 22, wherein the diote comprises a series of information stages, i.e. a SPX, an ORG, a XEL and a MOL.